

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000514**Date Inspected:** 23-Sep-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Lu Jianpin, Cui Yi Lu & Ye Yong			CWI Present:	Yes	No
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No N/A
				Delayed / Cancelled:	Yes	No N/A

Bridge No: 34-0006**Component:** Mock Up**Summary of Items Observed:**

Elevation 77: Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe ZPMC Non Destructive Testing (NDT) Technicians Li Liming and E Shuiqin, performing Ultrasonic Testing (UT) of completed weld repairs on Sub-Assembly (SA) MUSA-MA1 Face E. There were a total of 4 new rejects found in the repaired welds.

Elevation 89:

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe ZPMC (NDT) Technician Zhou Dongyun, utilizing the Magnetic Particle Testing Method (MT) to examine the 100% of the areas of the seam welds in the upper and lower diaphragms, that had been affected by cutouts and edge trimming.

Elevation 114:

Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding being performed for the fabrication of the Mock Up at elevation 114. The QA Inspector randomly observed ZPMC qualified welder Zhiang Zhou performing a first time weld repair on a 170 millimeter long by 45 millimeter deep excavation in Complete Joint Penetration Weld Joint (WJ) Number 5, attaching longitudinal stiffener piece mark MP1009 to SA MUSC-MA101 Face B (Skin Plate B). Mr. Zhiang was utilizing ZPMC approved Weld Procedure Specification (WPS) WPS-345-FCAW-1G(IF)-Repair-1. The QA Inspector observed ZPMC CWI Lu Jianpin monitoring weld parameters. The QA Inspector also performed random verification of the

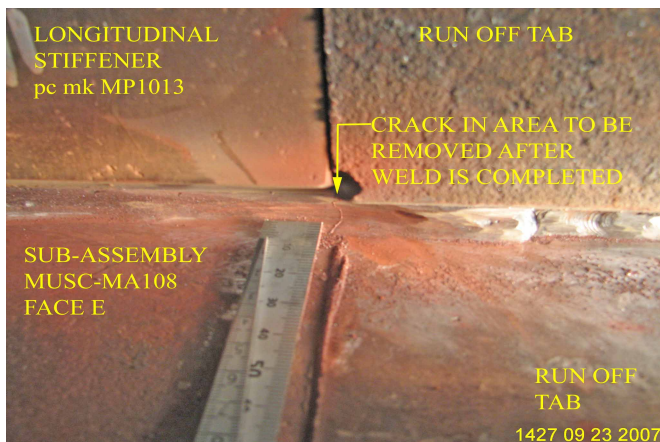
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weld parameters and documented them as follows: welding amperage 275 amps and welding voltage 28. Weld parameters appeared to comply with the above approved ZPMC WPS. The attached photograph provides additional detail.

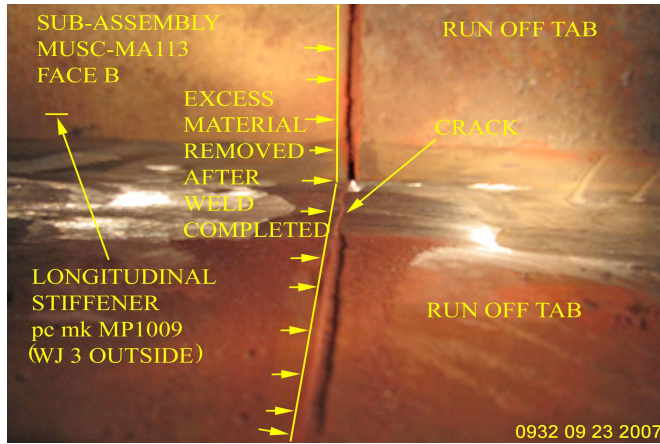
The QA Inspector randomly observed ZPMC NDT Technician Cai Xin Xin, utilizing MT to examine 100 percent of the root passes on Partial Joint Penetration (PJP) WJ number 3 and WJ number 4 attaching longitudinal stiffener piece mark MP1013 to SA MUSC-MA108 Face E (Skin Plate E). The QA Inspector performed random MT examination of the same root passes and observed cracks at the areas of the attachment of the run off tabs on both WJ 3 and WJ 4. ZPMC NDT Technician Cai Xin Xin also observed the same indications. The area where the cracks occurred, will be removed after the welds are completed and MT will be performed at the removal area by ZPMC. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC NDT Technician Cai Xin Xin, utilizing MT to examine 100 percent of the root passes on Partial Joint Penetration (PJP) WJ number 3 and WJ number 4 attaching longitudinal stiffener piece mark MP1004-1 to SA MUSC-MA113 Face D (Skin Plate D). The QA Inspector performed random MT examination of the same root passes and observed a crack at the area of the attachment of the run off tab on WJ 4. ZPMC NDT Technician Cai Xin Xin also observed the same indication. The area where the crack occurred, will be removed after the weld is completed and MT will be performed at the removal area by ZPMC. The attached photograph provides additional detail.



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Summary of Conversations:

There were no relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
